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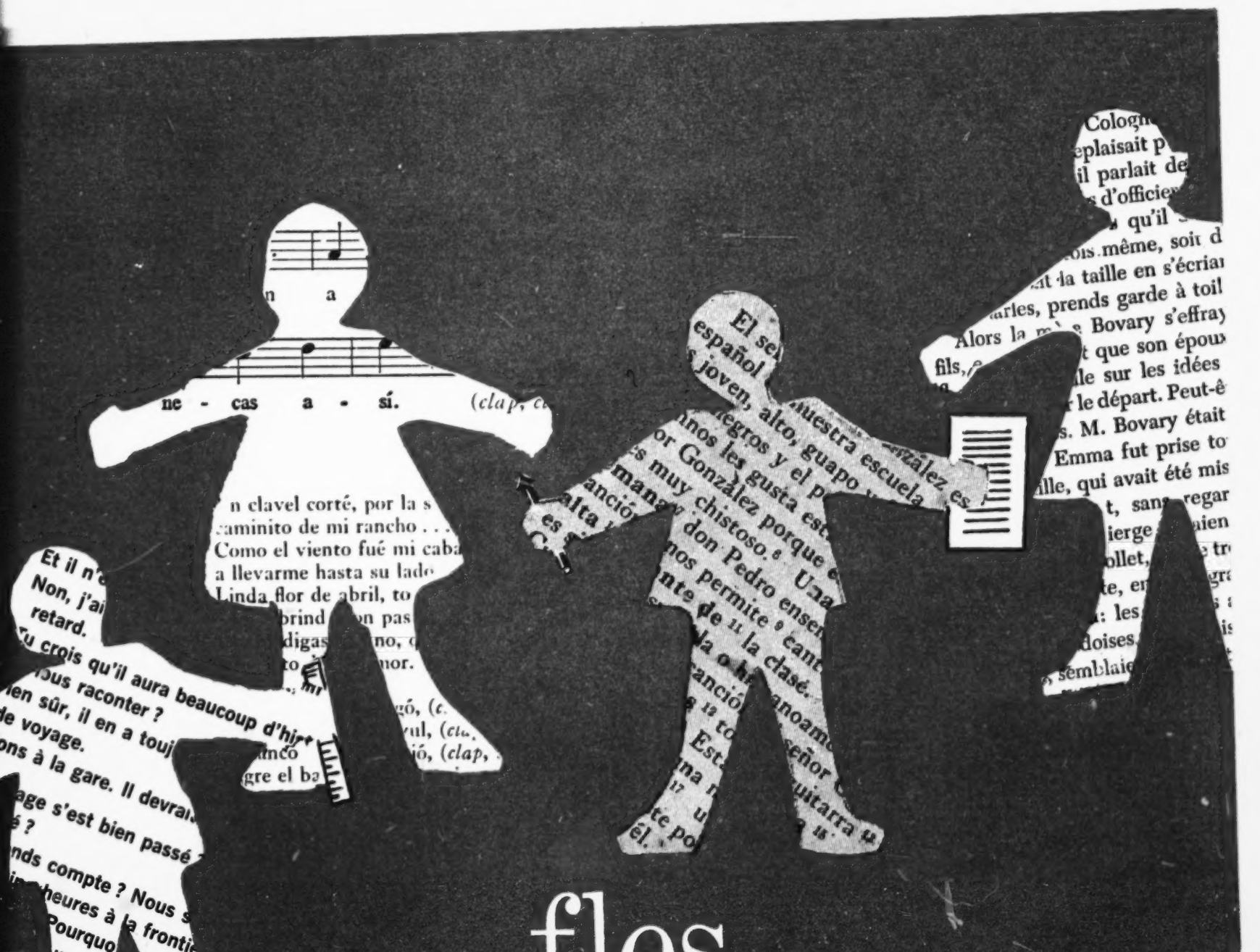
Presented in this report are the procedures, results, and recommendations of a study conducted in Fairfield, Connecticut in which high school students with FLES backgrounds were compared with non-FLES peers in terms of language skills and interest in foreign language study. A summary of findings on student interest in language study is presented first and is followed by descriptions of the skills measurement procedures, test administration and scoring, sample selection, statistical procedures, and test results. Summarized conclusions indicate that FLES background stimulated considerable interest in further language study and that FLES-trained groups scored higher than their peers in most of the language skills tested. The report concludes with a short discussion of the study's implications and some brief recommendations for follow-up studies and for an improved FLES program. (AR)



fles evaluation

language skills and pupil attitudes in the Fairfield, Connecticut, public schools

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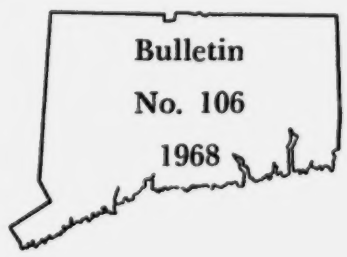

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foreword

This study was conducted at the request of the Fairfield Board of Education. Since there is general interest in research evidence on the effects of a program of Foreign Languages in the Elementary School (FLES) on the development of skill in the foreign languages, the Connecticut State Department of Education lent its advice and support.

The first year of the study was financed entirely by the Fairfield Board of Education. The major expense was the testing and scoring of the tests. The cost of test scoring for the second and third years of the project was paid by the State Department of Education with funds obtained under Title III of the National Defense Education Act. The same source of funds supplied a programmer and computer time for analysis of the data.

The following persons have served on the steering committee for this study since the organization of the project in 1963:

Fairfield

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This report is a summary of a study which I submitted as a dissertation for a Ph.D. at Kent State University. The dissertation is entitled *The Effect on Foreign Language Skill Development of a Continuing Foreign Language Program Beginning in the Elementary Grades.* It is available at the university library or through University Microfilms.

Alfred J. Oneto, *Project Coordinator*

introduction

The purpose of this study was to investigate the degree to which the teaching of foreign languages in elementary schools (FLES) can produce high-school graduates with language skills significantly superior to graduates whose only language study was in high school. A secondary phase of the study was an analysis of student interest in foreign languages, contrasting high-school seniors who had a full FLES experience in one language with those who did not have this background.

When compared with previous studies, this study was unique because former FLES pupils in grades 9-12 were, for the most part, assigned to "continuing" classes separate from students who began learning a foreign language in high school.

Throughout this report the term *language* is used to mean the target (foreign) language. Also, for the purposes of this discussion, the students with elementary-school language experience have been called the "FLES group." Those who began language study in high school have been labeled the "non-FLES group."

the literature

The FLES program in operation in Cleveland, Ohio since 1922 is considered the oldest continuing program. The concept of teaching foreign languages to elementary-school children spread slowly until 1952, when U. S. Commissioner of Education Earl T. McGrath fanned the small sparks and turned them into a flame which soon enveloped all corners of our nation.

At first there was very little objective measurement of the results of these programs, although the opinions of pupils, parents, and professionals tended to be favorable.[1]

Professionals were of the opinion, however, that there were individual differences among children in their ability to learn foreign languages. Starting in the elementary grades did not assure that all children could learn easily.[2] Furthermore, it was not easy to preselect those who would be successful, since language learning aptitude did not appear to be highly related to general intelligence as measured by IQ.[3]

1Emile B. De Sauzé, "Teaching French in the Elementary Schools of Cleveland," *The French Review,* XXVI (April, 1953), pp. 374-376; Mario A. Pei, "Languages for the Very Young," *The Modern Language Journal,* XXXII (May, 1948), p. 335; Emilie Margaret White, "Some Experimentation in Modern Foreign Languages," *The Modern Language Journal,* XXXIV (April, 1950), p. 256; Marian Dryer, "Grade School French Students Reach High School," *The French Review,* XXIX (December, 1955), p. 158; Blanche Price, "Memories of French in Elementary School," *The French Review,* XXIX (January, 1956), p. 245; Joseph M. Vocolo, *The Clearing House,* XXXV (April, 1961), p. 482; Donald Walsh, "A Survey of FLES Practices," *Reports of Surveys and Studies in the Teaching of Modern Foreign Languages* (New York: The Modern Language Association of America, n.d.), p. 213; Dorothy M. Wood, "An Evaluation of a Program in Spanish Language Instruction in the Elementary School," unpublished Master's thesis (University of Utah, Department of Elementary Education, 1960), pp. 71, 81, 84.

2Elizabeth Etnire, "Five Years of Spanish in the Elementary School," *The Modern Language Journal,* XLII (November, 1958), p. 349; Walter B. Leino and Louis A. Haak, *The Teaching of Spanish in the Elementary Schools and the Effects on Achievement in Other Selected Subject Areas* (St. Paul, Minnesota: St. Paul Public Schools, 1963), pp. 77, 78, 90; Mary M. Page, "We Dropped FLES," *The Modern Language Journal,* L (March, 1966), pp. 139-140.

3Georgina Hicks, "Findings of the FLES Program in Muncie, Indiana," *The French Review,* XXXII (October, 1958), pp. 63-64; Barbara von Wittich, "Prediction of Success in Foreign Language Study," *The Modern Language Journal,* XLVI (May, 1962), pp. 208-211; Paul Pimsleur, Donald M. Sundland, and Ruth McIntyre, *Under-Achievement in Foreign Language Learning: Final Report,* The Ohio State University Research Foundation Project 1380, conducted under Contract OE-2-14-004 with the U. S. Department of Health, Education and Welfare, Office of Education (Columbus, Ohio: The Ohio State University, 1963), p. 35.

Objective evidence to date has indicated the following: (a) many pupils in elementary grades can learn meaningful amounts of a foreign language from daily lessons of 15-20 minutes begun in grades 3 or 4,[4] and (b) students with a good FLES experience can usually be placed at least one year ahead of their peers in high-school language classes.[5]

setting for the study

Though a minimal amount of information was available about the earliest days of the Fairfield FLES program, it was obvious that the school staff struggled with the same administrative problems and sought the same general goals that had been achieved in many school systems throughout the country. Plagued by an initial lack of teaching materials, Fairfield was fortunate in having the services of creative teachers and co-ordinators who were able to provide a meaningful program while continually looking to find new approaches and better programs. The Fairfield FLES program in 1967 had emerged from a long process of trial and error. But it was not claimed that the ultimate had been achieved in teaching foreign languages to elementary-school children.

Fairfield evaluation

Student Interest

Student reactions were solicited from the graduating classes of 1963, 1965, and 1966. Questionnaires were returned by 1,882 students in early June of their senior year in high school. Responses were categorized according to whether the pupils: (1) had studied French in grades 3-6, (2) had studied Spanish in grades 3-6, or (3) had not had a complete FLES sequence because they had moved into town after grade 3 or had moved within the town and had changed languages.

The results of this survey (Appendix D, Table 1) indicated overwhelming support for the continuation of elementary-school language classes. Though a large minority (about 32 percent) responded that only *some* students should receive language instruction in the elementary grades, only a very small percentage (about 5 percent) would have eliminated the classes entirely. The opinions of students who had not studied one language in grades 3-6 did not differ markedly from those of students who had participated in the full FLES program, except that a larger proportion of the former group expressed no opinion. This was not unreasonable because many of these pupils entered the Fairfield school system at the junior-high or high-school grade levels and were not familiar with the FLES program.

It was noted that about 50 percent of the pupils with a full French or Spanish FLES program continued studying their language in high school, and more than 20 percent of each language group remained with the continuing program through their senior year. It must be pointed out, however, that this poll would not have accounted for pupils who left high school before the

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4Harold B. Dunkel and Roger A. Pillet, *French in the Elementary School: Five Years' Experience* (Chicago: The University of Chicago Press, 1962), p. 100; Esther W. Lopato, "FLES and Academic Achievement," *The French Review*, XXXVI (April, 1963), p. 504; Leino and Haak, *op. cit.*, p. 42; Joseph Justman and Martin L. Nass, "The High School Achievement of Pupils Who Were and Were Not Introduced to a Foreign Language in Elementary School," *The Modern Language Journal*, XL (March, 1956), p. 121; Wood, *op. cit.*, pp. 34, 35, 48.

5J. Bernard Everett, "Recommendations Regarding Elementary School French," Memorandum to Dr. Charles Brown and Members of the Newton School Committee, June 8, 1964, pp. 3-4, (Mimeographed); Justman and Nass, *op. cit.*, pp. 120-123; Evelyn Brega and John M. Newell, "Comparison of Performance by 'FLES' Program Students on Modern Language Association Tests," Paper presented at the American Educational Research Association Convention in Chicago, 1965, pp. 4-6, (Mimeographed); Joseph H. Vollmer and Ruth E. Griffiths, *Evaluation of the Effect of Foreign Language Study in the Elementary School upon Achievement in the High School*, Final Report (Somerville, New Jersey: Somerville Public Schools, July, 1962), pp. 65-68.

final months of their senior year either because they moved away or because they withdrew from school after reaching their 16th birthday. It was found that 81 percent of the pupils who had a complete FLES program did participate in the study of some language in high school. Only 74 percent of all other students were enrolled in high school language courses. Almost all students who continued study of their FLES language through high school pursued it until at least the end of their sophomore year. Over 40 percent of the FLES pupils who were planning to go to college replied that they were planning to continue the study of their FLES language. However, almost an equal number were not planning any further language study. The remainder were planning to study either a language studied in high school or a new language they had never studied.

Measuring Skills

In order to determine the long-range effectiveness in langauge skill development of starting foreign language study in the elementary grades, it was decided that the French and Spanish skills of pupils in grades 10, 11, and 12 would be evaluated. Altogether, 1,496 high school students in these grades were tested for their ability to speak, read, write, and understand the spoken language in French and Spanish. From this total, the research centered upon the scores of 913 pupils who were truly representative of either former Fairfield FLES students who were continuing their language study in high school, or pupils who began the study of French or Spanish in their high-school years.

Many Fairfield high-school pupils had not been exposed to language study in the elementary grades because they entered the system in grade seven or later. A large portion of these came from local parochial schools which did not offer a FLES program. However, there was also a large influx from other towns and states.

It was decided that language skills would be measured with the MLA-Cooperative Foreign Language Tests. Even though these were new when this study began, they appeared to the best battery available to measure the four major skills in both French and Spanish. Further, the number of forms to be produced assured that this test could be used in consecutive years without duplicating the test items.

Test Administration

The first testing session took place in early June, 1964. The LA Form was given to tenth-grade French and Spanish classes of both the FLES and non-FLES groups, and the MA Form was used with the upper two grades. These were the only forms available in 1964.

In 1965, the MB Form was used with juniors and seniors because the latter had taken the MA Form the previous year. In 1966, the MA Form was used with seniors because they had taken the MB Form the previous year.

The reading, writing, and listening portions of the test were administered by the regular classroom teachers during the usual class periods. The speaking portion of the test was more involved and special attention was given to its administration.

The equipment used to receive the master voice and record student responses was the wireless headset receiver and Audio Notebook tape recorder produced by Electronic Futures (EFI). With the EFI equipment, it was possible to test all students in their regular classrooms. It was also possible to record more than 20 students on separate channels of one tape.

Another advantage of this equipment was that the recorder was so compact that it could easily fit on a standard student desk. Though all teachers were given some training in the use of the equipment, certain key teachers who were most adept with the equipment were assigned to administer the speaking tests.

Test Scoring

The reading and listening comprehension parts of the test battery were designed with four-part multiple-choice answers to all questions. Student responses were recorded on an IBM-type scoring sheet, and a master scoring stylus for each test form was prepared by the study co-ordinator. The scoring was done by hand by women who had experience in this type of work and who had been employed for this purpose by the Fairfield consultant for guidance and psychological services. A random check by the writer of about 5 percent of the answer sheets uncovered no scoring errors.

The writing and speaking portions of the test battery required scoring by a person highly competent in the language. This person would have to make subjective judgments about the replies of the students. It was decided that such scoring persons should not be residents of Fairfield or members of the staff of the Fairfield public schools — so that there would be no personal bias for or against the Fairfield FLES program which would affect their scoring judgment.

Assistance was sought initially from neighboring universities. However, a contact with Mrs. Miriam Bryan, director of the MLA testing program for the Educational Testing Service, finally provided outstanding scorers for both the 1964 and 1966 scoring sessions. All scorers had experience doing this work for Educational Testing Service. Most of them were native speakers of the language they were scoring.[6]

The scoring sessions were held in Fairfield under the direction of the project coordinator. A classroom fitted with work tables was provided at the Fairfield school system's Instructional Materials Center where the scoring team (for French and Spanish) could work together.

In both years, the teams worked for two weeks. Scoring sessions lasted from 8 to 4, with morning and afternoon coffee breaks and an hour for lunch. Each tape contained several student responses, both upper and lower levels of the test and both FLES and non-FLES pupils.

In this way, each scorer received a random selection from all groups. With scorers working in the same room, there was a maximum amount of consistency by constant checking and comparing of scores. On the initial day of work in both sessions, scorers worked together to score some tests to assure that they were using the same frame of reference. When any point was unclear, the scorers met to discuss it so that joint action would result in similar scores by all members of the team.

After all speaking tests were scored, writing tests were attempted. Once again, the scoring team met to discuss and plan its work so that an equivalency of rating would be achieved. Though the work was begun at the scoring center, some of the writing tests were scored at home by members of the team because two weeks were not adequate to score all speaking and writing tests. The writing tests were grouped in the same fashion as the tapes so that each scorer received a random selection of FLES and non-FLES students to score.

Sample Selection

Because it was not possible to assign students to FLES or non-FLES groups at random, an attempt was made to select a "purposive sample" which would be representative of students who had either studied one language continuously from the elementary grades or had begun the study of a foreign language in high school. For statistical analysis, "purposive" samples may be treated like random samples.[7]

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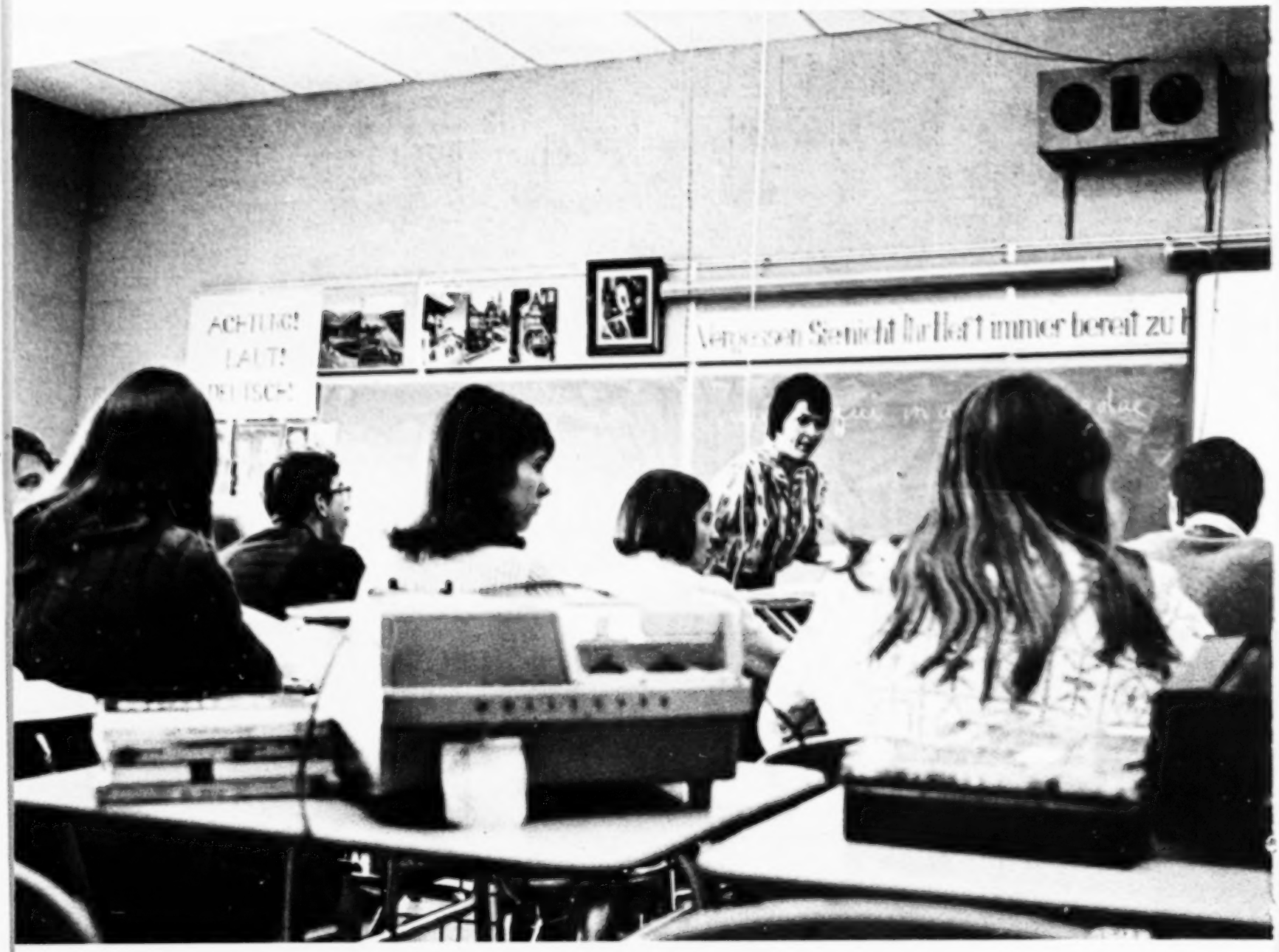
[6]See Appendix A for details concerning the test scoring personnel.

[7]Henry E. Garrett and R. S. Woodworth, *Statistics in Psychology and Education* (New York: Longmans, Green and Co., 1958), p. 207.



In order to "purify" the sample, all students with considerable external contact with the language they were studying (such as a summer living abroad or a relative who speaks the language) were removed from the analysis.

Also unused were scores of pupils who had studied the majority of their language in another school system, those whose records were indefinite regarding early language study, or those who had been enrolled in a partial FLES program but would not fit the pattern of either of the two study groups.[8]

There were 913 pupils used in the statistical analysis out of 1,496 tested. These were divided into the FLES group – students who began their continuous foreign language study at some time from grade three to the beginning of their sixth-grade year, and the non-FLES group – students who started the continuous study of their language in high school.

It was noted that the overwhelming majority (82½ percent) of the FLES group actually did begin in grade three. Those who began later were kept in the study group because through extra help, they were considered capable of continuing beyond the sixth grade. About 30 percent of the FLES group were placed in classes with students who had begun at the high-school level. Placement of this nature was made when it would better meet the needs of the individual student.

Although 67 percent of the non-FLES pupils had no previous foreign language experience, the remainder of the group had participated in one to three years of language study in the elementary grades. However, none of them continued beyond grade six, and in all cases their high-school courses were taken with other beginning pupils.

The majority of the pupils with some early language training (about 60 percent) elected to return to a language they had studied in the elementary grades. The others started a different language. There were also nine pupils in this group who had been placed with the continuing students because they had shown outstanding skill in their regular classes. These pupils were still counted as part of the non-FLES group because they had begun to learn their foreign language in high school.

After selection and distribution into groups, these groups were examined to determine whether they were similarly proportioned in respect to sex, high school, and section of the community where they resided. Of the 524 French pupils, the FLES group had 34 percent boys and the non-FLES group had 32 percent boys. Of the 389 Spanish students, there were 40 percent boys in the FLES group, and 48 percent boys in the non-FLES group. None of the differences was statistically significant at the .05 confidence level.

Because it did not seem feasible to determine socio-economic status directly, it was decided that an approximation could be made by determining how various areas of the town were represented in the study. For this purpose the town was divided into seven sections based on school enumeration districts.

The French and Spanish pupils were considered together, and the percentage of the FLES and non-FLES groups in each area was calculated. The differences between the groups in the seven areas were not statistically significant at the .05 confidence level.[9]

Statistical Procedures

In order to account for inequalities in academic ability between FLES and non-FLES groups, an analysis of covariance design was used to test the significance of the difference between mean scores. Formulas used were derived from Lindquist.[10] Though subjects were not drawn at random, it was considered that

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[8] See Appendix B for more details.

[9] See map in Appendix C for details by district.

[10] E. F. Lindquist, *Design and Analysis of Experiments in Psychology and Education* (Boston: Houghton Mifflin Company, 1956), pp. 319-323.

they represented a "purposive" sample, typical of Fairfield high-school language students. The deletion of certain pupils was made either to remove extraneous influences or because of incomplete tests or poor tapes.

The concomitant or uncontrolled variable selected was the grade average of the pupil at the end of the year in which he was tested. This average did not include language grades, so that it could be assumed that the "X-measure" would not be affected by the "treatments"—FLES or non-FLES.

The grade average was selected because, at the time, it had proved to be the one factor of student general ability that had the highest correlation with language achievement. Von Wittich indicated a correlation coefficient of .7305 between total grade point average and teachers' marks in four languages. Her study was conducted with 230 ninth-grade pupils in one high school.[11]

Though Leino and Haak had indicated significant positive correlations between IQ and language achievement,[12] these were not as high as correlations reported by von Wittich for grade average. One of the reasons why the grade average may have been a better predictor of success in language classes was that it took into account student motivation as well as ability. As indicated by Dunkel and Pillet: "In our own classes, less well-endowed children who settle down and work at mastering the language consistently outperform much more gifted individuals who keep hoping that their undeniable brilliance will somehow see them through."[13]

Brega and Newell did report high correlations between IQ and the four language skills, but only for one of their two groups—the group with FLES experience. The coefficients for the non-FLES group were not significant.[14]

Pimsleur, Sundland, and McIntyre also supported the concept that grade average appeared to be the best available predictor of language achievement as measured by language grades. However, they were able to increase the correlation by adding other factors which were unavailable in this study.[15]

The homogeneity of regression was checked for each comparison made with formulas provided by Lindquist.[16] Groups not showing similar regression were reported as not comparable. By inspection, regressions appeared to be linear. The distributions of scores for treatment populations were not perfectly normal. But curves for both FLES and non-FLES groups were similarly negatively skewed.

This was consistent with the fact that students with lower ability in languages generally did not continue their language study. By inspection it was determined that these distributions had variances which were similar enough so that the use of the F ratio would not be appreciably affected.

Because there was some disagreement in the literature concerning the degree of correlation between language skills and grade average, correlation coefficients were computed between skill scores and grade averages for all groups, using Lindquist's formula.[17] The significance of these correlations was tested using tables provided by Garrett and Woodworth.[18]

Test Results

The purpose of this study was to analyze the differences in language skills demonstrated by high-school students with and without FLES experience. Also analyzed were the correlations between scores on the MLA tests and the grade averages (excluding language

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11 von Wittich, *loc. cit.*

12 Leino and Haak, *op. cit.*, p. 24.

13 Dunkel and Pillet, *op. cit.*, p. 6.

14 Brega and Newell, *op. cit.*, p. 5.

15 Pimsleur, Sundland, and McIntyre, *op. cit.*, pp. 7 and B-7.

16 Lindquist, *op. cit.*, p. 331.

17 *Ibid.*, p. 320.

18 Garrett and Woodworth, *op. cit.*, p. 201.

grades) used as the concomitant variable.

The following statements are generally representative of the results of the testing and indicate the major findings of the study:

1. FLES-group sophomores significantly excelled non-FLES sophomores in all foreign language skills.[19]

2. FLES-group sophomores significantly excelled non-FLES juniors in audio-lingual skills and equalled them in visual-graphic skills.[19]

3. FLES-group sophomores were equal to or better than non-FLES seniors in audio-lingual skills but were poorer in visual-graphic skills.[19]

4. FLES-group juniors excelled their non-FLES peers in all language skills and were equal to or better than non-FLES seniors in these skills.[20]

5. FLES-group seniors excelled their non-FLES peers in a majority of language skill measures.[21]

6. Significantly positive correlations were indicated between grade average (excluding language grades) and language skills as measured by the MLA-Cooperative Foreign Language Tests.[22]

7. Highest correlations reported in this study were between grade average and foreign language writing skill, and the lowest correlations were between grade average and foreign language speaking skill.[22]

summary

Conclusions drawn from the statistical analysis must be tempered by the recognition of several limitations. The population from which the study samples were drawn was restricted to a purposive sample of Fairfield high-school pupils in grades 10 through 12 who were enrolled in French or Spanish and who had studied one language continuously either since elementary school or since beginning in high school.

A second limitation was the use of grade average as the concomitant variable in an attempt to allow for group differences in academic ability. Though there did not appear to be any better factor to use to account for variation in learning potential, it was indicated that the relationship between grade average and achievement in language skills was positive but not very high in predictive value.

A major uncontrolled variable was teacher skill. However, each group in the study included pupils of several teachers during each year the pupils were tested and many different teachers over the total span of time the students had been studying languages.

There were several instances where some members of both FLES and non-FLES groups had been taught by the same teacher. A final limitation was the test battery used to measure the skills. The nature of the test posed a degree of restriction. Although most parts were shown to have high reliability, the speaking portion was weak in inter-scorer consistency.[23]

Conclusions

√ Pupils who begin continuous study of a foreign language in grade three can achieve, in most instances, significantly greater skill in reading, writing, speaking, and understanding the language than their peers who begin language study in high school.

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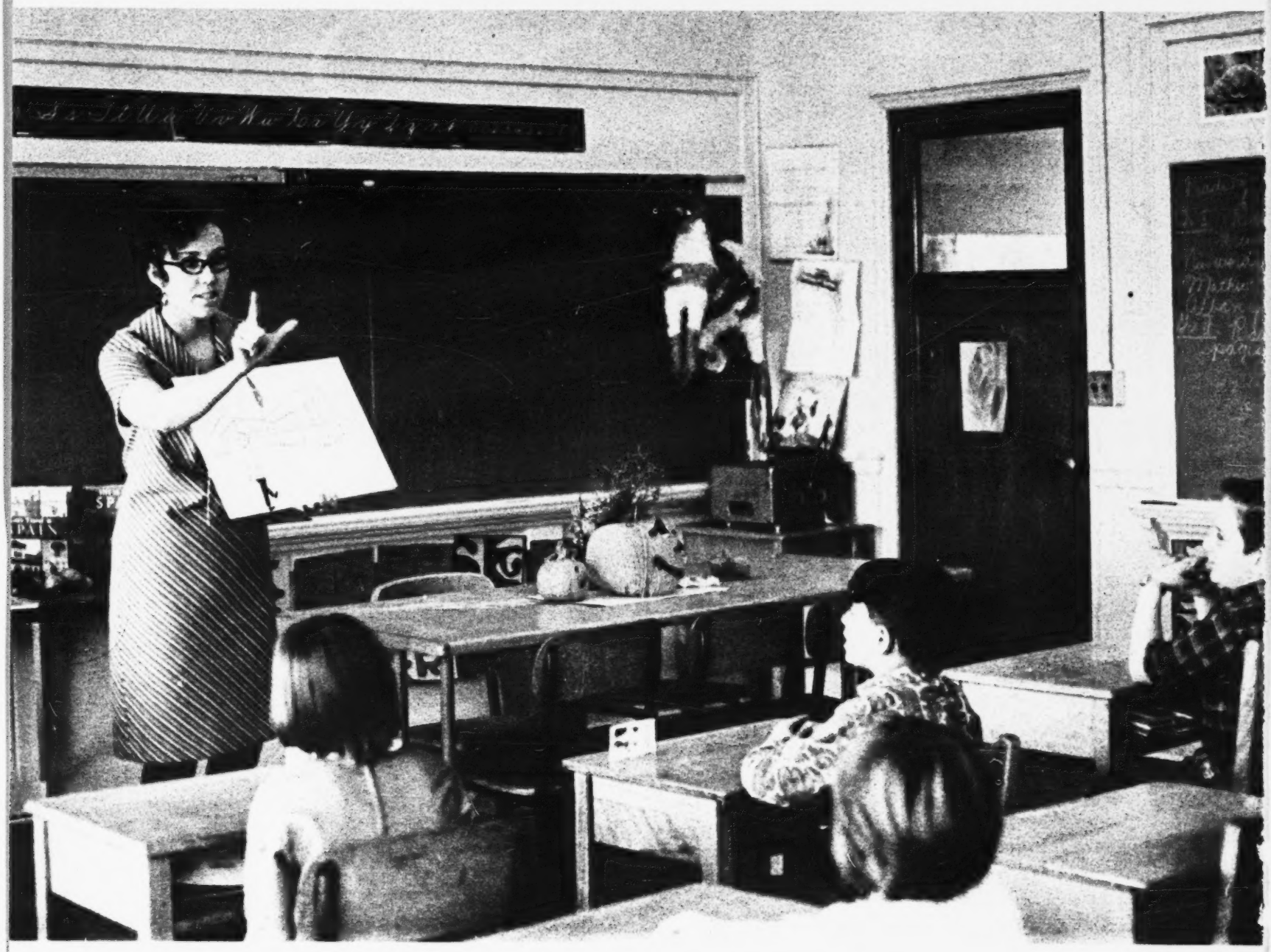
[19]See Appendix D, Table #4.

[20]See Appendix D, Table #5.

[21]See Appendix D, Table #6.

[22]See Appendix D, Table #7.

[23]*MLA-Cooperative Foreign Language Tests: Handbook* (Princeton, New Jersey: Educational Testing Service, 1965), p. 22.



√ In the audio-lingual skills, high-school sophomores who study a foreign language continuously from the third grade can be equal to or better than students two grades ahead of them who begin language study in high school.

√ High-school students who study a foreign language continuously from the third grade can be equally as skillful in reading and writing the language as students one grade ahead of them who begin language study in high school.

√ There is a significant positive correlation between high-school pupils' total grade averages (excluding language grades) and their achievement in four foreign language skills: reading, writing, speaking, and listening. This relationship is not sufficiently strong, however, to warrant using grade average as a sole predictor of success in language skill achievement.

√ High-school seniors in a school system with a strong FLES program may be expected to display favorable attitudes toward the elementary-school language program.

√ Students who have been taught a foreign language in the elementary grades for four years appear to be somewhat more likely to elect language study in high school than pupils who do not have this experience.

√ Foreign languages studied in elementary school are most often selected for further study in high school and college.

Implications

● Because of the limitations of this study, the conclusions drawn cannot be generalized to apply to a wider population than Fairfield's. However, it would appear that similar results could be anticipated in other communities with analogous programs. With the wealth of curriculum materials now available, it should be possible to offer FLES programs which would be superior to the language lessons received in elementary school by the pupils measured in this study.

● It was recognized that there are other human factors, such as sound discrimination ability, which are not accounted for in this study. Because of their apparent success in the elementary grades, the FLES groups may have been unusually gifted in this or other factors which are part of "language aptitude."

● While students in both French and Spanish FLES groups exceeded their peers during the tenth and eleventh grades, pupils in the non-FLES group were able to perform equally well in some skills by the senior year. It may be inferred that either the pupils in the FLES group reach a platau in certain skills or the curriculum and teaching techniques were not directed toward the continual building of these skills.

● Studies have often shown that the attitudes of children mirror those of their parents. Therefore, it may be assumed that a major portion of Fairfield parents react with favor toward the FLES program. Interest and enthusiasm from parents have been found whenever talks about the FLES program were presented at Parent-Teacher Association meetings.

● Because students appear to favor continued study of languages offered in the FLES program, enrollments in other languages may decrease. This has been true in the Fairfield high schools. There are implications here for curriculum planners on local, state, and national levels. Our nation needs people who speak languages other than French and Spanish. Therefore, decisions must be made concerning the wisdom of encouraging the start of many languages at the elementary level, or encouraging greater numbers of linguistically talented students to start a second foreign language as soon as their first one is sufficiently mastered. There is little evidence that the study of one language necessarily helps in learning a second foreign tongue. However, it may be possible that those who are very success-

ful in learning one language may have more confidence and a degree of "language aptitude" necessary to succeed in the learning of other languages.

● It may be implied that FLES programs will continue to expand as studies such as this indicate the potential which may be achieved by such courses. As this happens, there are definite implications for colleges. First, they should plan to offer advanced courses taught in foreign languages to students who have come from the secondary schools with nine or ten years of language study. Second, colleges should attempt to offer one or more of the less popular languages at an elementary level for students who have a desire to learn additional foreign languages. And third, colleges who train teachers should encourage students talented in languages and interested in young children to become FLES teachers. Courses in methodology and student teaching experiences should be offered in these areas. Also, it would seem useful if a foreign language requirement were added to the prescribed curricula for elementary teachers because in many communities the classroom teacher will be responsible for language teaching, even though much of the actual instruction may come from a movie, recording, or television program.

Recommendations

1. Although pupils are likely to have a highly diverse pattern of experiences after leaving high school, an attempt might be made to re-test some of the pupils used in this study after they have been out of high school for at least two years. In addition to the testing, a thorough report on the language activities of each student should be part of the study. A suggested group to use for such a study would be those pupils in the class of 1966 for whom three years of test scores are available. Further, it might be advisable to make some provision for the students to keep in contact with the Fairfield board of education so that some follow-up might again occur in later years.

2. Further testing should be conducted in the 1970-1972 period to determine whether the new audio-lingual curriculum in the Fairfield school system will bring about improvements in language-skill development. The measuring instruments used in this study should be used again so that scores can be compared with the ones obtained in this research.

3. Because of the limitations of any tests, it would be informative to compare FLES and non-FLES pupils in a more realistic situation. Arrangements might be made through the Experiment in International Living or a similar organization to evaluate the experiences of students living abroad. Undoubtedly, some of these students will be products of FLES programs in the years ahead. They could be compared with students who started language study in high school or college.

4. A study similar to this should be conducted on a much broader scale to include pupils who began their study of foreign languages in kindergarten or the nursery school and also those who began to study a language in the junior high school. To achieve such a variety, several communities may need to be involved.

5. A study should be made to determine why the degree of difference in language skills between FLES and non-FLES groups does not remain more consistent from grade 10 to grade 12.

6. Further study should be made of pupils who discontinued their language at the end of grade six. It would be particularly helpful to consider the pupils who enrolled for language study in high school after a two-year hiatus. Such a study would show whether the FLES experience was advantageous to these pupils if they returned to the study of their FLES language, or if they began another language.

7. Another study might be conducted of pupils with a continuing language experience who have begun other languages in high school immediately after dropping, or in conjunction with, the study of their FLES language. The

purpose of this research would be to determine whether a continuing FLES experience is useful in learning other languages.

8. Because teacher competence was uncontrolled in this study, provisions should be made to consider this factor in a future study. Since it is difficult to measure teacher skill objectively, the most feasible way to equalize the FLES and non-FLES groups would be to assign the same teacher to an equal number of FLES and non-FLES sections on a given grade level.

9. Further research should be conducted on ways to measure other benefits which could be derived from a FLES program. Does FLES truly lead to improvements in international understanding? What cultural advantages does FLES offer?

10. Efforts should be made to provide good teachers of foreign languages for as many American elementary schools as possible. Until American colleges produce more such persons, it may be appropriate to tap foreign sources.

11. As teachers become available, research and pilot programs should be conducted where pupils are taught part of their regular subject matter in the foreign language each day—a third to a half of the school day. An alternate approach might be an eight- to ten-week summer session where complete immersion in the second language is attempted. In order that these pupils be able to return to their normal curriculum in the fall, the program should be developed around material already learned and not exposure to completely new content. It might be hypothesized that the closer the classroom comes to being a place where a child learns to communicate in a second language necessary for meeting his daily needs, the more skilled the pupil will become in the use of his second language.

. . . foreign language study extends the horizon and fosters desirable attitudes toward other peoples—an outcome which is highly important in our world today. It is clear, it seems to me, that these are cogent psychological, social, pedagogical, and national reasons for intensifying and increasing the scope of language instruction in the American school system . . .

There [should] be a complete reconsideration of the place of foreign language study in American elementary education. Such a reappraisal, I should hope, would lead to the offering of foreign language at least on an optional basis in many of our schools beginning in the fourth, fifth, or sixth grades. To be sure, the present offerings of the elementary school are so demanding that educators are hard pressed to find time for all the activities that seem to be justifiable. Nevertheless, the prime purpose of the school is to prepare the young for the life of their time . . . many of them must know the languages of other peoples who will live with them in this shrinking world. If this be true, then the curriculum of the elementary school must be so organized as to make a place for such instruction. If this were to be done, within a decade many of our youth would have a foundation in at least one foreign tongue.

— Earl J. McGrath, *U. S. Commissioner of Education, 1949-53*

Paris

appendix a

Scorers

Esperanza F. Amaral

Spanish scorer 1966; born in Cuba and lived there ten years; lived in Spain 12 years; doctorate from University of Havana; teaching experience at high school and college level; Associate Professor of Spanish at Elmira College, 1966; five years' experience as a scorer of similar tests.

Eladio Cortes

Spanish scorer 1964 and 1966, team co-ordinator; Born in Spain and lived there twenty-eight years; degrees from Spanish and American universities, working for doctorate; taught in American universities since 1957; chairman of Spanish Department, Rutgers University, 1964 and 1966; member of College Boards Spanish Committee for two years; taught four years at N.D.E.A. summer institutes; test scorer for E.T.S. since 1961.

Juan E. Lopez

Spanish scorer 1964 and 1966; born in Spain and lived there thirty-one years; bachelor's degree from Santiago University; secondary-school teacher in Spain and U.S.A.; Spanish teacher, Choate School, 1964 and 1966; test scorer for E.T.S. since 1960.

Francoise Mercier

French scorer 1964; born in France and lived there twenty-nine years; certificates from Sorborne and British Institute in Paris; secondary-school teacher in French and American schools; French teacher at Fine's School, Princeton, 1964; two year's experience as a test scorer for E.T.S.

Michele Muncy

French scorer 1964 and 1966; born in France and lived there twenty-eight years; M.A. from University of Texas, working on doctorate; taught at American universities since 1958; French instructor at Rutgers University, 1964 and 1966; test scorer for E.T.S. since 1961.

Natalia P. Sukacev

French scorer 1966; born in Russia; lived in France seventeen years; B.A. from Russian Lyceum in Paris, certificates from Sorbonne; taught in American schools since 1959; worked in test development department of E.T.S. two years; lecturer in French at Beaver College, 1966; seven years' test scoring experience for E.T.S.

Brinda A. Zanders

French scorer 1966; born in Latvia; lived in France over six years; graduate student working toward doctorate in 1966; five years' test scoring experience with E.T.S.

appendix b

Exclusions

Some pupils were excluded from the final analysis for the following reasons:

◪ External contact (40 pupils): All pupils were eliminated who had spent a full summer or more in a country where the language was spoken or had frequent access to relatives or servants who spoke the language fluently. Although interest in use of the language may have stemmed from study in school, the unusual opportunities for practice may have been related more to the socio-economic status of the family.

◪ Background data (66 pupils): Because language grades were not given in the elementary-school program, there were some instances where no indication of language study had been made on a student's permanent record. Also, many students came from other school systems, and their records were not sufficiently complete regarding language study. All these pupils were rejected because they could not be assigned properly to a group for purposes of this study.

◪ Other school systems (38 pupils): All students were eliminated if the majority of their language study had been in another school system. It was thought that these pupils would not truly represent the Fairfield language student.

◪ Incomplete tests (128 pupils): All students who did not complete all four tests in the battery were eliminated so that when comparisons were made the group would be consistent for each of the four skills.

◪ Unscorable tape (119 pupils): Even though students were given a practice session and were protected by two or three professionals, there were times when they failed to record properly for a major portion of the test. If only a few minor parts did not appear on the tape, it was assumed that the student did not know the answer. When major portions were missing, the entire tape was invalidated.

◪ Miscellaneous situations (192 pupils): Several pupils did not have a continuous language program in such a way that they could be classified as either a FLES or non-FLES student for the purposes of the study. Some of these had participated in classes for a few years of one language, then their families moved to another section of the community where study of another language was undertaken. Others moved into the community when they were in junior high school. Special language classes were held for the more able pupils so that they could catch up with their peers in the continuing program before reaching high school. However, it was not possible to classify these students with either the group starting in elementary school or those who began language in high school. Some were either inadvertently overlooked or were removed at random to work within the time available for test scoring. Some left the school system and later returned.

appendix c

Student Sample

Though no attempt was made to determine the socio-economic status of pupils participating in this study, there was an identification of addresses. By relating these to school census districts, it was possible to determine the percent of the total FLES and non-FLES group coming from each of seven sections of the community. The results shown on the map (Fig. 1) indicate that there was no severe imbalance in the geographic distribution of the two groups.

On the following page (Fig. 2) the distribution is by school and sex. The percent of the FLES and non-FLES groups is similar in both of these areas for both French and Spanish students.

appendix d

Table 1 – Summary of Responses on a Questionnaire Administered to Fairfield High-School Graduating Classes in 1963, 1965, and 1966

Table 2 – All FLES and Non-FLES Groups by Grade Level: French

Table 3 – All FLES and Non-FLES Groups by Grade Level: Spanish

Table 4 – Comparing Grade 10 FLES Groups with Non-FLES Groups at the Same or Higher Grade Level

Table 5 – Comparing Grade 11 FLES Groups with Non-FLES Groups at the Same or Higher Grade Level

Table 6 – Comparing FLES and Non-FLES Groups in Grade 12

Table 7 – Correlation Between Grade Average and Achievement in Language Skills

figure 1 — Geographic Distribution of FLES (F) and Non-FLES (N-F) Groups

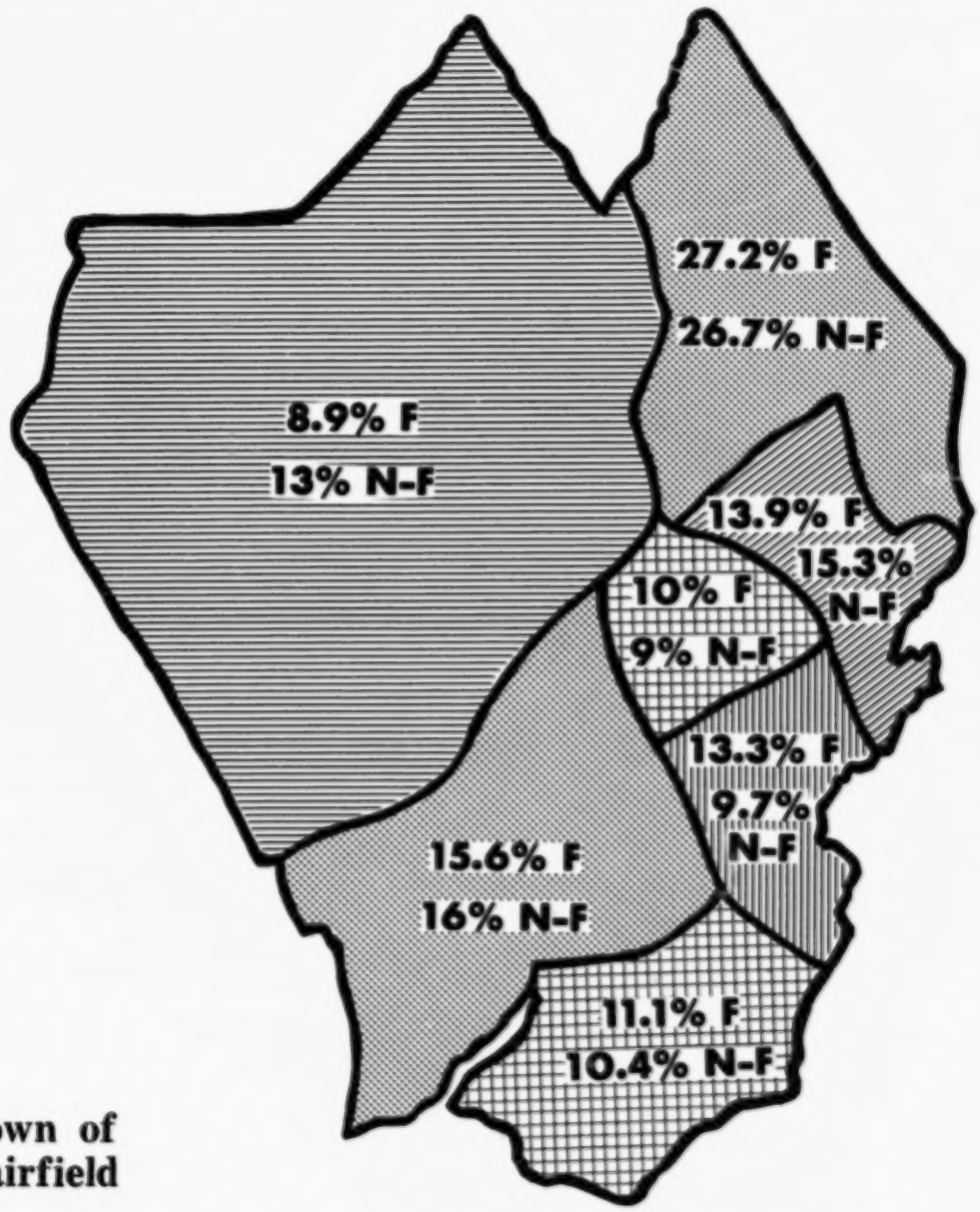


figure 2 — School and Sex Distribution

Item	French		Spanish	
	FLES	*Non-FLES*	*FLES*	*Non-FLES*
Ludlowe	39%	34%	50%	42%
Warde	61%	66%	50%	58%
Boys	34%	32%	40%	48%
Girls	66%	68%	60%	52%

table 1

Summary of Responses on a Questionnaire Administered to Fairfield High School Graduating Classes in 1963, 1965, and 1966

Item	Studied French in Grades 3-6		Studied Spanish in Grades 3-6		Others[a]	
	No.	%	No.	%	No.	%
Extent of Continued Study of FLES Language						
Pupils completing grade 12	139	26%	74	21%	.....	
Pupils dropping out after grade 11	65	12%	54	16%	.....	
Pupils dropping out after grade 10	55	10%	45	13%	.....	
Pupils dropping out after grade 9	10	2%	15	4%	.....	
Pupils dropping out prior to grade 9[b]	261	50%	156	46%	.....	
Language Study in High School						
Pupil studied only FLES language	274	52%	197	57%	.....	
Pupil studied FLES language plus other language(s)	65	12%	38	11%	.....	
Pupil studied other language(s) but not FLES language	93	17%	44	13%	583	74%[c]
Pupil studied no language	98	19%	65	19%	205	26%[c]
Anticipated College Language Study						
Pupil will continue only FLES language	105	30%	67	32%	.....	
Pupil will continue FLES language plus other language(s)	40	11%	20	9%	.....	
Pupil will continue a non-FLES language studied in high school	40	11%	19	9%	261	49%[c]
Pupil will study a language not studied in public school	36	10%	23	11%	65	12%[c]
Pupil will not study languages	127	38%	82	39%	206	39%
Opinions Regarding Who Should Be Enrolled in FLES						
All pupils	288	54%	211	61%	582	53%
Some pupils	196	37%	97	28%	313	28%
No pupils	26	5%	17	5%	42	4%
No response	20	4%	19	6%	171	15%

[a]This category includes all pupils who entered the Fairfield school system after the third grade as well as those who entered before that time but for a variety of reasons did not have four continuous years of either French or Spanish in the elementary grades.

[b]The overwhelming majority of these drop out after grade 6.

[c]Though some of these pupils did have a partial FLES experience, they were counted here as having had none unless they had completed a four-year sequence in one language.

table 2

All FLES and Non-FLES Groups by Grade Level: French

Grade Level	No.	Grade Avg.		Listening Score			Speaking Score			Reading Score			Writing Score		
		Mean	s.d.	Mean	s.d.	%ile[a]	Mean	s.d.	%ile[a]	Mean	s.d.	%ile[a]	Mean	s.d.	%ile[a]
FLES Groups															
10	93	2.95	0.59	167	9.37	87[b]	167	8.40	96[b]	163	8.72	78[b]	161	8.93	68[b]
11	142	3.11	0.55	170	12.32	73	166	6.00	80	172	10.44	68	167	9.15	51
12	156	3.28	0.53	175	10.49	46	169	5.86	58	176	10.12	50	170	8.39	43
Non-FLES Groups															
10	53	2.65	0.61	154	8.13	55[b]	154	7.42	61	152	7.69	54	151	8.52	28
11	45	2.80	0.65	159	8.64	37	159	6.32	61	162	8.58	34	161	7.79	34
12	35	3.15	0.48	165	11.41	24	164	7.21	52	172	10.01	33	168	7.19	36

[a]*MLA-Cooperative Foreign Language Tests: Booklet of Norms* (Princeton, N.J.: Educational Testing Service, 1965), pp. 5-10.

[b]Norms used for grade 10 are those listed for "audio-lingual" courses.

table 3

All FLES and Non-FLES Groups by Grade Level: Spanish

Grade Level	No.	Grade Avg.		Listening Score			Speaking Score			Reading Score			Writing Score		
		Mean	s.d.	Mean	s.d.	%ile[a]	Mean	s.d.	%ile[a]	Mean	s.d.	%ile[a]	Mean	s.d.	%ile[a]
FLES Groups															
10	47	3.00	0.59	167	9.67	88[b]	176	10.06	98[b]	166	10.42	86[b]	163	7.02	80[b]
11	85	2.90	0.62	167	11.65	62	172	11.95	74	168	12.37	69	165	6.96	71
12	98	3.12	0.56	174	9.32	57	176	12.70	52	179	10.86	66	170	6.50	71
Non-FLES Groups															
10	64	2.57	0.57	152	7.29	52[b]	164	9.34	84[b]	153	7.09	53[b]	154	7.30	57[b]
11	58	2.69	0.58	156	11.39	39	164	12.25	45	160	9.23	49	160	7.31	57
12	37	3.10	0.66	170	11.58	45	173	13.54	32	172	12.47	53	167	8.86	58

[a]*MLA . . . Tests: Booklet of Norms,* pp. 58-63.

[b]Norms used for grade 10 are those listed for "audio-lingual" courses.

table 4

Comparing Grade 10 FLES Groups with Non-FLES Groups at the Same or Higher Grade Level

Non-FLES		F Values From Covariance Analysis			
Grade	No.	Listening	Speaking	Reading	Writing
Comparing French 10 FLES Pupils (N = 93)					
10	53	61.74[a]	64.51[a]	52.76[a]	29.81[a]
11	45	21.90[a]	23.47[a]	0.00	1.14
12	35	3.97[a]	5.01[a]	19.05[b]	15.80[b]
Comparing Spanish 10 FLES Pupils (N = 47)					
10	64	65.03[a]	26.78[a]	39.22[a]	20.26[a]
11	58	17.22[a]	23.85[a]	2.19	0.06
12	37	1.64	3.94	6.73[b]	7.28[b]

[a]A significant difference exists (.05 level) in favor of the FLES group in grade 10.
[b]A significant difference exists (.05 level) in favor of the non-FLES group.

table 5

Comparing Grade 11 FLES Groups with Non-FLES Groups at the Same or Higher Grade Level

Non-FLES		F Values From Covariance Analysis			
Grade	No.	Listening	Speaking	Reading	Writing
Comparing French 11 FLES Pupils (N = 142)					
11	45	21.40[a]	34.39[b]	21.64[a]	7.42[b]
12	35	8.39[b]	4.03[b]	0.17	0.13
Comparing Spanish 11 FLES Pupils (N = 85)					
11	58	26.21[b]	12.06[b]	11.20[b]	8.53[b]
12	37	0.35	0.08	0.91	1.21

[a]These data are not comparable, because it could not be assumed that the regression of the skill measures on the grade average is homogeneous.

[b]A significant difference exists (.05 level) in favor of the FLES group in grade 11.

table 6

Comparing FLES and Non-FLES Groups in Grade 12

Lang.	FLES No.	Non-FLES No.	F Values from Covariance Analysis			
			Listening	Speaking	Reading	Writing
French	156	35	25.28[a]	11.36[a]	3.79	0.85
Spanish	98	37	4.41[a]	1.83	14.50[a]	5.19[a]

[a]A significant difference exists (.05 level) in favor of the FLES group.

table 7

Correlation Between Grade Average and Achievement in Language Skills

Study Group	Grade Level	No.	Correlations[a]			
			Listening	Speaking	Reading	Writing
French						
FLES	10	93	.534	.382	.595	.602
.....	11	142	.626	.357	.613	.660
.....	12	156	.506	.344	.631	.664
Non-FLES	10	53	.403	.292	.465	.611
.....	11	45	.241[b]	.287[b]	.350	.583
.....	12	35	.491	.485	.539	.654
Spanish						
FLES	10	47	.604	.343	.691	.667
.....	11	85	.654	.255	.631	.379
.....	12	98	.461	.062[b]	.542	.528
Non-FLES	10	64	.489	.405	.558	.541
.....	11	58	.463	.403	.541	.527
.....	12	37	.613	.539	.560	.661

[a]All correlations except the ones marked "b" are significantly positive at the .05 confidence level. See Garrett and Woodworth, *op. cit.*, p. 201.

[b]Not significant.